



NASA Weekly Update

Week of July 17 - 24, 2006

7-24: Space Shuttle Atlantis Moves to Vehicle

Assembly Building: Space Shuttle Atlantis moved out of its hangar today at NASA's Kennedy Space Center, Fla. The move from the Orbiter Processing Facility to the Vehicle Assembly Building is referred to as a "rollover." Inside the assembly building, Atlantis will be attached to its external fuel tank and twin solid rocket



The crew of STS-115. Astronauts Brent W. Jett, Jr. (right) and Christopher J. Ferguson, commander and pilot, respectively, flank the mission insignia. The mission specialists are, from left to right, astronauts Heidemarie M. Stefanyshyn-Piper, Joseph R. (Joe) Tanner, Daniel C. Burbank, and Steven G. MacLean.

boosters. Atlantis' launch window begins Aug. 28. During its 11-day mission to the International Space Station, the STS-115 crew of six astronauts will install the Port 3/4 truss segment with its two large solar arrays. Video of the rollover will air on NASA TV's Video File. For NASA TV downlink, streaming video and scheduling information, visit: <http://www.nasa.gov/ntv>. For information on the STS-115 mission and its crew, visit: <http://www.nasa.gov/shuttle>.

7-20: NASA Assigns Crew for Columbus Shuttle

Mission: NASA has assigned crew members to the space shuttle mission that will deliver the European Space Agency's Columbus Laboratory to the International Space Station. A veteran space flier, Navy Cmdr. Stephen N. Frick, will command the STS-122 shuttle mission to deliver the lab to the station. Navy Cmdr. Alan G. Poindexter will serve as pilot. Mission specialists include Air Force Col. Rex J. Walheim, Stanley G. Love, Leland D. Melvin and European Space Agency astronaut Hans Schlegel. Poindexter, Love and Melvin will be making their first spaceflight. For complete astronaut biographical information, visit: <http://www.jsc.nasa.gov/Bios>. For more information about NASA's Space Shuttle Program, visit: <http://www.nasa.gov/shuttle>.

7-20: NASA Brings the Future of Exploration to

Oshkosh Airventure 2006: NASA will take visitors to the moon, Mars and beyond at the country's biggest annual air show, held in Oshkosh, Wis., July 24-30. NASA scientists, engineers, educators, and communicators will be on hand at the Experimental Aircraft Association's Airventure 2006 to provide a glimpse of the future in an exhibit that has universal appeal, literally. For more information about Airventure 2006, including scheduled events, visit: <http://www.airventure.org/>.

7-19: Cassini Reveals Titan's Xanadu Region to be

an Earth-Like Land: New radar images from NASA's Cassini spacecraft revealed geological features similar to Earth on Xanadu, an Australia-sized, bright region on Saturn's moon Titan. These radar images, from a strip more than 2,796 miles long, show Xanadu is surrounded by darker terrain, reminiscent of a free-standing landmass. At the region's western edge, dark sand dunes give way to land cut by river networks, hills and valleys. These narrow river networks flow onto darker areas, which may be lakes. A crater formed by the impact of an asteroid or by water volcanism is also visible. For Cassini images and information, visit: <http://www.nasa.gov/cassini>.

Weekly Status Reports



Space Shuttle

Atlantis (OV-104)

Mission: STS-115 - 19th International Space Station Flight (12A) - P3/P4 Truss Segments and Solar Arrays
Vehicle: Atlantis (OV-104)
Location: Orbiter Processing Facility Bay 1
Target Launch Date: Aug. 28, 2006

In Orbiter Processing Facility bay 1, Atlantis has been placed on a transporter that will be used to transfer the orbiter to the Vehicle Assembly Building. Rollover of Atlantis is occurring today, Monday, July 24, 2006. Once in the VAB, the orbiter will be lifted into high bay 3 for mating to the external fuel tank and solid rocket boosters.

Discovery (OV-103)

Discovery is back in Orbiter Processing Facility bay 3 following a 13-day mission to the International Space Station. The orbiter is now being processed for its next mission, STS-116. The payload bay doors have been opened, and thermography inspections of the nose cap and reinforced carbon-carbon panels on the wing leading edges are under way. The orbiter's main engines and the orbiter boom sensor system will be removed next week.

Endeavour (OV-105)

Powered-up system testing continues on Endeavour in Orbiter Processing Facility bay 2 following an extensive modification period. Functional testing of the atmosphere revitalization pressure control system is under way. This system maintains crew module pressure during flight. Tile-processing work continues around the external tank doors and nose landing gear doors. Gap filler removal and replacement continues in the high priority areas of the orbiter's heat shield.



International Space Station (ISS)

For the first time since early 2003, the International Space Station is home to three crew members. European Space Agency astronaut Thomas Reiter joined Expedition 13 following Space Shuttle Discovery's mission earlier this month. Reiter, who serves as the expedition flight engineer, Commander

Pavel Vinogradov and Flight Engineer Jeff Williams got down to business. Their tasks this week included activating a new high-tech freezer; installing additional sound suppression devices; performing a functional check of a new oxygen generation system, which will become active next year; and preparing for the next spacewalk, set for just before 10 a.m. EDT on Aug. 3.

Discovery left behind about three tons of supplies, hardware and experiments as well as 175 gallons (660 liters) of water and 74 pounds (33 kilograms) of nitrogen, leaving the station in excellent condition to support the crew of three. One of the most anticipated experiment racks, the Minus Eighty Laboratory Freezer for ISS, was activated. The freezer will allow biological and human research experiment samples to be stored until they are returned to Earth for evaluation. The recent Discovery mission brought the new oxygen generation system and the freezer to the station. Status checks were performed this week on the newly installed oxygen system to prevent its internal valves from sticking over long periods of dormancy. Once it is activated, the device will augment the Russian Elektron oxygen-generation system in preparation for the further expansion of the station crew to six people.

The crew also began preparations for the next spacewalk. The spacewalk by Williams and Reiter will be conducted in U.S. spacesuits. The astronauts will deploy external experiments and prepare station truss components for future assembly work. Additional solar panels and electrical equipment will be delivered by the next two space shuttle missions, scheduled for late August and December. Spacewalk preparations included flushing cooling loops in the Quest airlock and the spacesuits and configuring airlock systems and tools. For more about the crew's activities and station sighting opportunities, visit:
<http://www.nasa.gov/station>.



Upcoming Events

- July 27: Briefing on NASA TV for the Space Station Spacewalk set to occur on August 3.
- July 27-30: NASA exhibit "Vision for Space Exploration Experience" at Ames Research Center.
- July 29-30: NASA Glenn Research Center exhibit at the Dayton Air Show, Dayton International Airport.
- NET Aug 20: STEREO launch
- NET Aug 28: Space Shuttle Atlantis STS-115 mission

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